

# Skin Deep Anxiety: Investigating Social Appearance Anxiety and Coping Strategies in Patients with Skin Diseases

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## ABSTRACT

**Objective:** To assess social appearance anxiety in patients with skin diseases.

**Study Design:** Case control study.

**Place and Duration of Study:** This study was conducted at the HITEC Hospital Taxila from 1<sup>st</sup> January 2023 to 31<sup>st</sup> May 2023.

**Materials and Methods:** Four hundred and forty seven participants out of which 335 individuals with age range 13-60 years of both the genders with skin diseases were enrolled as cases through simple random sampling technique. 112 matching controls were selected. Individuals with psychiatric disorders and those on antipsychotic drugs were excluded from the study. History and physical examination were done by Dermatologist. Social Appearance Anxiety Scale (SAAS) score was used to assess their anxiety levels in diverse situations that involve potential evaluation of their appearance. Participants' coping strategies were evaluated using Coping Strategies Inventory (CISS).

**Results:** The cases exhibited a mean SAAS score of  $38.54 \pm 14.34$ , whereas the control group displayed a mean of  $28.69 \pm 8.30$ . Independent t-test revealed a highly significant statistical association ( $p$ -value  $< 0.000$ ), between the two groups. A statistically significant association emerged between the SAAS score and the employment status of cases through a chi-square analysis. Among the cases, the coping strategy most frequently employed was emotion-focused, utilized by 37.9% (127) of participants, followed by task-oriented, with 36.4% (122) and only 25.6% (86) of cases employed avoidant coping strategies.

**Conclusion:** These findings can serve as underpinning for developing interventions and support systems that cater to the overall well-being of individuals grappling with both physical and psychological challenges.

**Key Words:** Social appearance anxiety scale, Coping strategies inventory, Skin diseases

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## INTRODUCTION

The skin, being the largest organ and a visible marker of an individual's health, holds significant sway over one's self-perception and interactions with the external world. Skin diseases, ranging from chronic disorders to transient conditions, can exert a considerable impact not only on physical health but also on the individual's psychological and emotional well-being.<sup>1,2</sup> As such, it is not uncommon for individuals grappling with skin diseases to experience heightened levels of social

anxiety, stemming from concerns about how their appearance is perceived by others.<sup>3</sup> The intersection of skin diseases and social anxiety gives rise to a complex interplay that reverberates through various aspects of an individual's life. From interpersonal relationships to professional settings, the emotional burden of social anxiety can cast a shadow on diverse spheres of daily existence. This relationship becomes particularly pertinent due to the potential cyclical nature of its influence - where skin diseases may trigger or exacerbate social anxiety, and in turn, heightened anxiety might contribute to the exacerbation of dermatological conditions.<sup>4</sup>

The pervasive influence of social media and our appearance-centric society has become a double-edged sword for mental health. On one hand, the constant exposure to carefully curated images and standards of beauty on social media can foster unrealistic body ideals, leading to body dissatisfaction and low self-esteem.<sup>5</sup> On the other hand, the pressure to maintain a flawless online image can fuel anxiety, as individuals fear not measuring up to the meticulously constructed portrayals of others. This obsession with appearance can divert attention from genuine self-worth,

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contributing to feelings of inadequacy and anxiety. The constant comparative nature of social media can amplify negative self-perception and contribute to the rise of conditions like body dysmorphic disorder and social anxiety.<sup>6</sup> Navigating the fine line between online presentation and mental well-being requires fostering a balanced perspective on appearance, emphasizing self-acceptance and promoting genuine connections beyond the realm of virtual impressions.<sup>7</sup>

A cross-sectional multicentric study conducted across 13 European countries, involved 4,994 participants, including 3,635 patients and 1,359 controls, recruited from dermatology clinics and among hospital employees. The findings reveal significant associations between psychological distress and dermatological diagnoses.<sup>8</sup>

In a cross sectional study in Pakistan by Dogar et al<sup>9</sup> included 77 indoor dermatology patients. This study revealed a notable prevalence of depression and anxiety among patients with dermatological disorders. Another study by Ashraf et al<sup>10</sup> in Pakistan enrolled 150 patients of eczema, psoriasis and acne concluded a psychodermatological approach in their treatment plans is crucial for enhancing their clinical well-being.

Through an in-depth examination of these dimensions, this study aims to provide valuable insights into the intricate relationship between skin diseases, social appearance anxiety, and coping mechanisms. Such insights hold the potential to inform tailored interventions, psychological support, and therapeutic approaches that cater to the holistic well-being of individuals navigating the complex landscape of living with skin diseases.

## MATERIALS AND METHODS

This case control study was done in Department of Dermatology, HITEC Hospital Taxila from 1<sup>st</sup> January 2023 to 31<sup>st</sup> May 2023. Ethical approval was sought from the institutional review board of hospital. Total 447 participants were enrolled in this study out of which, 335 individual age range 13-60years of both the genders with skin diseases were enrolled as cases through simple random sampling technique. 112 matching controls were selected. Individuals with psychiatric disorders and those on antipsychotic drugs were excluded from the study. Informed consent was obtained from all participants. Confidentiality and anonymity of participants was ensured by assigning unique identification codes to collected data. History and physical examination were done by Dermatologist. Participants completed a series of self-administered questionnaires. These include: Social Appearance Anxiety Scale (SAAS): Participants' levels of social appearance anxiety were measured using a validated scale. The SAAS score consists of 16 items designed for self-reporting, where individuals are asked to assess their anxiety levels in diverse situations that involve

potential evaluation of their appearance. Respondents were required to rate the items on a 5-point scale, spanning from 1 (not at all) to 5 (extremely). By summing up the scores from all 16 items, a total score is obtained, which falls within the range of 16 to 80. A higher total score on the SAAS score signifies a higher level of social appearance anxiety experienced by the individual.<sup>11</sup>

Participants' coping strategies were evaluated using Coping Strategies Inventory (CISS): a well-established inventory, capturing both adaptive and maladaptive coping mechanisms. The CISS, developed by Endler and Parker (1990) and further elaborated upon by Avero et al. (2003), presents a comprehensive four-factor model for understanding how humans cope with adversity. This model categorizes coping strategies into three distinct types: Emotion-oriented, Task-oriented, and Avoidant (7 points each).<sup>12</sup> Task oriented individuals when face stress opt to proactively address the issue head on. Emotion-oriented try to channel their efforts towards managing their emotional responses and reducing stress levels. Additionally, a third approach involves steering clear of stressors altogether. This can manifest as diverting attention through activities like making purchases or seeking solace in social interactions, thereby evading direct confrontation with the source of stress.

Data obtained was analyzed using SPSS 28. Chi square and Pearson's correlation coefficient, was used to assess the relationships between age, marital status, education, employment status of cases with SAAS score. Independent t test was used to compare the means of SAAS score of cases and control taking p-value of <0.05 as significant.

## RESULTS

The mean age was 24.10±6.09 years. Of the 335 participants, 133 (39.7%) were male, and 202 (60.3%) were female. Marital status analysis revealed that 64 (19.1%) were married, while the majority, 271 (80.9%), were unmarried. Comprehensive details of both the case and control groups are given in Table 1.

The prevalent skin condition reported by participants did acne and rosacea comprise 39.6% of cases. Following closely were acne scars and post inflammatory hyperpigmentation at 16.5%, androgenic alopecia at 14.5%, melasma at 9.9%, hirsutism at 4.9%, complexion 3.2%, eczema and allergies in 3%, signs of aging at 2.6%, with psoriasis and vitiligo each at 0.3% and 0.33%, respectively. Additionally, a subset of participants, accounting for 5% of cases, reported other, unspecified skin conditions. It's important to note that some participants reported experiencing more than one type of skin condition concurrently.

The cases exhibited a mean Social Appearance Anxiety Scale score of 38.54±14.34, whereas the control group displayed a notably lower mean of 28.69±8.30. A

comparison of these means using an independent t-test revealed a highly significant statistical association (p-value <0.000), emphasizing the distinction between the two groups.

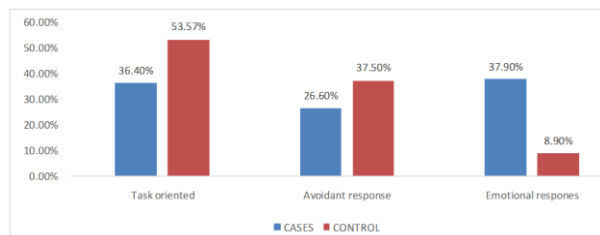
When investigating the relationship between the SAAS score and the employment status of cases through a chi-square analysis, a statistically significant association emerged. However, it's noteworthy that no significant associations were observed between age, gender, marital status, and the SAAS score among the cases.

Among the cases, the coping strategy most frequently employed was emotion-focused, utilized by 37.9%

(127) of participants, followed closely by task-oriented, with 36.4% (122) opting for this approach. Additionally, 25.6% (86) of cases employed avoidant coping strategies. In contrast, the control group predominantly relied on task-oriented coping, with a significant majority of 53.57% (60) utilizing this approach. A smaller proportion, 37.5% (42), employed avoidant strategies, while emotional coping strategies were the least preferred, chosen by only 8.9% (10) of the control group participants as shown in Figure 1.

**Table No.1: Characteristics of cases and control**

Variable	Case (n=335)	Control (n=112)	p-value
Age	24.10±6.09	28.24±4.34	0.571
<b>Gender</b>			
Male	133 (39.7%)	55 (49.1%)	0.250
Female	202 (60.3%)	57 (50.9%)	
<b>Marital status</b>			
Married	64 (19.1%)	30 (26.8%)	0.208
Unmarried	271 (80.9%)	82 (73.2%)	
<b>Employment status</b>			
Employed	94 (28.1%)	52 (46.4%)	0.042
Housewife	19 (5.7%)	5 (3.6%)	
Student	191 (57.0%)	43 (42.4%)	
Unemployed	31 (9.3%)	12 (10.7%)	
<b>Education</b>			
Under-matric	17 (5.1%)	4 (3.57%)	0.631
Matric	16 (4.8%)	6 (5.35%)	
FSC/FA	100 (29.9%)	39 (34.8%)	
Bachelor	45 (13.4%)	16 (14.28%)	
Master & above	157 (46.9%)	47 (41.96%)	
Social Appearance Anxiety (SAAS) Score	38.54±14.34	28.69±8.30	<0.000



**Figure No. 1: Coping strategies adopted by cases and control**

## DISCUSSION

Skin diseases present a complex and multifaceted health concern, with far-reaching implications for patients, their families, and society at large. In today's digital era, where evolving beauty standards have placed a premium on appearances, chronic skin conditions, particularly those affecting the face, exact a considerable toll through physical discomfort and a diminished quality of life. Basra et al.'s comprehensive

review underscores the extensive burden borne by individuals with common skin diseases and proposes methodologies to effectively quantify this burden.<sup>13</sup>

In our study, we enrolled a total of 335 individuals diagnosed with skin diseases as cases, alongside 112 matching controls. The age range of our cases extended from 13 to 60 years, with a mean age of 24.10±6.09, a finding congruent with Duru et al.'s study in Turkey.<sup>14</sup> Within our cases, 133 (39.7%) were male, while 202 (60.3%) were female. Both genders grappled with daily practical, social, and emotional challenges stemming from their skin conditions, echoing the insights from a cross-sectional study conducted by Hughes et al. in the UK. This study further illuminated those higher levels of social appearance anxiety correlated with a greater perceived severity of skin conditions, particularly among younger individuals. Emotional impacts were comparable between males and females, although females displayed a heightened inclination toward avoidant coping behaviors.<sup>15</sup>

Our analysis revealed that cases exhibited a mean SAAS score of  $38.54 \pm 14.34$ , notably higher than the control group, which displayed a mean score of  $28.69 \pm 8.30$ . A statistical significance of this difference ( $p$ -value  $< 0.000$ ), emphasizing the substantial distinction between the two groups. These findings echo those reported by Hughes et al., underscoring the profound emotional, social, and practical challenges that individuals with skin conditions face. They reinforce the imperative of incorporating psychosocial interventions into dermatological care to bolster healthy coping strategies and enhance overall quality of life.<sup>15</sup>

Jain et al<sup>16</sup>'s research further shed light on the hurdles encountered by individuals with skin diseases, emphasizing the need for more supportive communication. They encompassing 120 participants with acne, melanosia, and alopecia areata (AA), compared stress, optimism, and social appearance anxiety among these groups. Interestingly, patients with AA reported the highest perceived stress and social appearance anxiety, followed by acne patients, while those with melanosia reported the least.

In 2023, Hugen et al<sup>17</sup> highlighted how living with skin conditions even in childhood impacted various facets of life, from mood and education to sleep and daily routines. Families sought accessible interventions that could seamlessly integrate into their lives and foster connections with other affected families. Promisingly, mindfulness-based interventions emerged as a potential avenue, given participants' familiarity with mindfulness techniques.

Montgomery et al<sup>4</sup>'s study, encompassing 120 adult dermatology outpatients, unveiled that a significant portion (33.4%) reported substantial social anxiety. Their findings advocate for the integration of mindfulness techniques as a potential means to alleviate distress among dermatology patients, warranting further exploration and investigation.

In my research, among the cases, the coping strategy most frequently employed was emotion-focused, used by 37.9% (127) of participants, followed closely by task-oriented, with 36.4% (122) opting for this approach. Additionally, 25.6% (86) of cases employed avoidant coping strategies. Conversely, the control group predominantly relied on task-oriented coping, with a significant majority of 53.57% (60) utilizing this approach. A study conducted in the UK also found that task-oriented coping was the most frequently used, followed by emotion-focused coping, with avoidant coping strategies being the least common.<sup>15</sup>

Since this study is not multicentric, it may limit the generalizability of findings to a broader population. Future research endeavors could consider broader sampling size, diverse geographical settings, and longitudinal designs to enhance the robustness and applicability of findings related to the complex

interplay of skin diseases, social appearance anxiety, and coping mechanisms.

## CONCLUSION

The paramount importance of recognizing the image related apprehension that accompany dermatological diseases. The results can inform interventions and support mechanisms to enhance the holistic well-being of individuals navigating both physical and psychological challenges, ultimately resulting in an elevated standard of care.

### Author's Contribution:

Concept & Design of Study:	Aqsa Naheed
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Revisiting Critically:	Aqsa Naheed, Ahmad Rafay
Final Approval of version:	Aqsa Naheed

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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